

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
E911 Requirements for IP-Enabled Service)	WC Docket No. 05-196
Providers)	
)	

To: The Commission

COMMENTS OF DONALD CLARK JACKSON

By: Donald Clark Jackson
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COMMENTS OF DONALD CLARK JACKSON

I, Donald Clark Jackson, hereby submit my comments¹ in response to the Commission's June 3rd 2005 *First Report and Order and Notice of Proposed Rulemaking* in the above-captioned proceeding.²

I have been involved professionally in the communications and computer fields for twenty-five years, and am currently employed as an engineering vice president at a startup communications company that provides speech enabled interactive voice response services and applications on an outsourced basis to major telecommunications carriers and large enterprises. For the past fifteen years, I have been actively involved in developing new communications applications, services, and devices

COMMENTS ON E911 ORDER

The Commission's goal to provide access to the E911 system to subscribers of interconnected VoIP providers is certainly in the public interest, but the rules and methods

¹ My comments are my own, and do not reflect the views of my employer, or anyone else.

² *E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, WC Docket No. 05-196, FCC 05-196 (June 3, 2005) [*"NPRM"*].

specified in the Commission's ruling are not in the public interest, in that they place extremely onerous requirements on VoIP providers, which will have the effect of significantly increasing the operating costs (and/or the costs of entry) to VoIP providers, thereby reducing competition, limiting consumer choice, and stifling innovation. If these other societal costs were necessary and essential in order to provide E911 service to VoIP users, then that tradeoff might need to be made, but no such tradeoff is necessary. The principle problem with this ruling is that it ignores the technical and economic realities of VoIP providers, and forces them to adopt legacy circuit-switched technologies that negate and obviate the very technology that enables their existence in the first place. If the Commission wants VoIP providers to deliver emergency calls to the E911 system, the Commission should require the E911 system to provide VoIP interfaces, instead the Commission is requiring VoIP providers to conform to the technically obsolete and economically onerous legacy interfaces that the E911 system currently supports.

VoIP providers should not be required to integrate with the E911 system's selective routers and PSAPs via legacy circuit switched TDM trunks, the PSAPs and their selective routers should interconnect themselves with the public Internet, and accept calls that VoIP providers send them over the Internet, using the IETF standard SIP and RTP protocols.

The Commission has previously (correctly) ruled that Internet telephony is an interstate service, but the E911 ruling fails to acknowledge that the current E911 system is fragmented and segmented far below even the state level: there are over 6,100 PSAPs, and over 2,000 selective routers in US, it is unrealistic and places a ruinous economic burden on a VoIP provider to integrate with thousands of local E911 systems. Instead, the Commission should require the E911 PSAPs to unify their systems, and provide the functional equivalent of a nationwide selective router, that would route 911 calls containing the caller's location information to the

correct PSAP. VoIP providers should be required only to connect to this nationwide selective router, and the connection between the VoIP provider and the national selective router would be the public Internet. Most VoIP providers are very small, and can easily serve the entire nation (and actually, the entire world), from one central location, so most VoIP providers will not have a presence in most states or localities, and they do not have the staff and cannot sustain the operating costs to establish thousands of connections to individual local selective routers and PSAPs. In stark contrast, VoIP providers wanting to interconnect with the PSTN (thus becoming “interconnected VoIP providers”) need only establish one connection with an international VoIP wholesaler (examples include Level3 and Global Crossing) to gain access to the entire legacy PSTN. It is unrealistic of the Commission to require these same VoIP providers to interconnect with thousands of PSAPs and selective routers for the sole purpose of complying with this ruling, they have no other business reason to establish this number of interconnections, nor do they have any other business reason to establish any circuit-switched TDM connections at all.

Much of the infrastructure of today’s E911 system is owned by the former monopoly local exchange carriers (LECs). When telephony service was provided by nationwide or local/regional monopolies, this made sense. But in today’s environment of competitive telephony providers, it is unacceptable and unfair for key elements of the E911 system to be owned by one of the competitors, which provides the owner with yet another weapon to stifle their competitors. The PSAPs must take ownership and control of the infrastructure used to provide E911 service. Of course, PSAPs may elect to outsource the day-to-day operations and maintenance of this infrastructure to private enterprise, but the overall ownership, and interconnection policy of the PSAP must be controlled by the PSAP itself. Several private enterprises (e.g. Intrado) have begun to develop service offerings that purport to unify the E911

system and to provide VoIP technology interfaces to it, but it is unacceptable and unfair if the only viable method of complying with the Commission's E911 rules and regulations is for a VoIP provider to make a business arrangement with one of these providers. For the most part these E911 unification providers are doing the work that the PSAPs themselves should be doing. Of course, if the PSAPs choose to contract with one of these providers to do the actual implementation work of providing unified national VoIP interfaces to the E911 system, that is their option, but the overall ownership, policy direction, and funding of nationwide unified VoIP E911 should flow from the PSAPs to their chosen outsourced implementation providers, and should not be borne by the VoIP carriers that have been required to integrate with the E911 system.

The Commission's ruling attempts to define the concept of "interconnected VoIP service", which is then made subject to the new E911 rules. Although it seems very clear that the definition of an interconnected VoIP service includes the current offering by Vonage, it is not at all clear if the ruling applies to the offerings like those from Project Gizmo (SIPphone) and Skype (to name two examples), which both offer inbound from PSTN and outbound to the PSTN calling as options. Since the Commission's ruling, I have had the opportunity to discuss this question with executives of several companies offering these types of applications, and everyone I have spoken with seems to have a different opinion and interpretation of the Commission's requirements and intent. It would be in the public interest for the Commission to be more clear and explicit about which services are and are not covered by this ruling. In addition, it is not clear if or how the Commission's ruling applies to interconnected VoIP providers that are located outside of the US. VoIP technology enables geographic independence, both of the subscriber and of the service provider. At least one of the most popular VoIP services today is owned and

operated by a company operating outside the US. As I have described above, the Commission's ruling is extremely onerous to VoIP providers, if the Commission's E911 ruling is not applicable to service providers located outside of the US, then US providers will be at a significant competitive disadvantage, with the resulting consequence being the migration of interconnected VoIP service providers to outside of the US. My proposals for E911 VoIP support minimize the cost of compliance to VoIP carriers, thus encouraging all VoIP providers to comply, regardless of their being subject to US laws and regulations, and to the extent that non-US VoIP carriers still do not comply with US E911 regulations, it is even more important for E911 compliance to not impose a significant burden on US-based VoIP providers.

COMMENTS ON E911 NPRM

In the NPRM, the Commission sees input about additional steps it should take to ensure providers of VoIP services provide E911 service. As my comments above indicate, I assert that the Commission's initial E911 rules are unrealistic, onerous, and unfair to VoIP providers. As such, it makes no sense for me to recommend "fine tuning" of the existing ruling. I urge the Commission to retract its ruling, and re-rule in the manner I have proposed.

One line of inquiry in the NPRM does merit my comment, support for disability access to the E911 system via TTY. As I discussed at length in my comments and reply comments on the IP-Enabled Services NPRM, the TTY system is technically obsolete in the Internet era. It makes no sense to burden VoIP providers by requiring their networks to support and transport TTY messaging. Tens (or even hundreds) of millions of Americans use "Instant Messaging" technology daily for real-time text communication. Text communication is an important

modality for PSAPs to support, for speech-impaired individuals, and in many other conceivable situations by speech-capable citizens. The Commission should mandate PSAPs to support real time textual communication by an Internet standard protocol (e.g. SIP/SIMPLE), and not burden VoIP carriers with obsolete and expensive TTY/TRS requirements. In this way, the emergency communications needs of speech impaired citizens can be better met, an important new modality can be provided to speech-capable citizens, and for a far lower cost than perpetuating the obsolete TTY system.

Respectfully submitted,

DONALD CLARK JACKSON

August 15, 2005